Draft-final from 5 August 2011

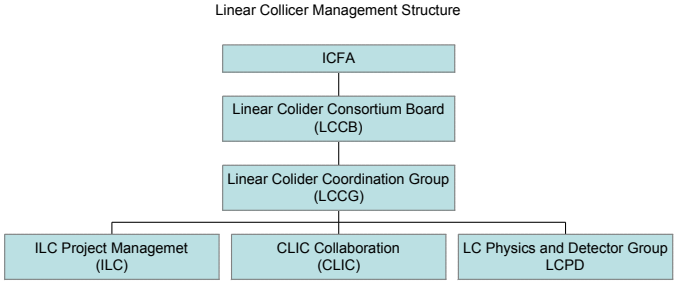
European Perspectives on the Linear Collider Organisation for the Post 2012 period

This is an input from Europe concerning the framework for the Linear Collider project subsequent to the termination of the mandates for the ILCSC and GDE following the submission of the TDR. We understand that this primarily concerns the ILC organisation, which needs clearly a continuation of a strong management body like the GDE. This is particularly important in order to preserve the ILC expertise and to further enhance it till the technology choice on the Linear Collider will be made based on the physics outcomes from the LHC and other accelerators. In the mean time, CLIC has become an element in the Linear Collider community that should be integrated. Since CLIC has a strong base in Europe, this naturally reflects in the European perspective.

Although good collaboration between ILC and CLIC in both machine and detector related areas already exists, merging two organisations into one at this moment does not appear productive. We think, therefore, it is important to start with a framework that contains both the ILC Project and CLIC Collaboration maintaining their individual structures, but can then evolve adiabatically to a single project. In this scheme, while the procurement of resources and monitoring of the progress for the LC project as a whole will be done commonly by the top body, the Linear Collider Consortium Board (LCCB), scientific and technical competence will remain in the ILC Project management and CLIC Collaboration during the initial phase. The Linear Collider Coordination Group (LCCG) below LCCB is to ensure communication between the two accelerator projects and to follow their development, as well as the detector and physics studies. In the long term, LCCG should gradually exercise a stronger coordination role in an adiabatic manner in such a way that the two accelerator projects will act closer and coherently. It is hoped that when a decision on the machine will be made, the structure can smoothly be transformed into a unique project structure. The formal integration of the detector R&D efforts for both ILC and CLIC projects should also be recognized in this new structure under the LCCG.

In the following, short descriptions of the LCCB, LCCG, ILC Project, CLIC Collaboration and LC Physics and Detector Group are given after the schematic drawing of the framework. Since ILC needs to form a new structure, more details are given compared to CLIC that will continue with the existing collaboration structure.

Framework for the Linear Collider Work



Linear Collider Consortium Board (LCCB)

Members include national and international laboratories providing large resources and regional representatives. It concerns mainly science policy and financial issues.

Linear Collider Coordination Group (LCCG)
Members include a chair, leaders of the ILC, CLIC, and the LC Physics and Detector group. Initially the group will ensure steady development of scientific and technical work and good communication between ILC and CLIC. It will adiabatically evolve to a group assuming a stronger coordination and project management role, in such a way that the structure can smoothly transform to a single project when the technology choice is made based on the physics outcomes from the other experiments.

ILC Project
One of the great successes of the current GDE has been its ability to craft a powerful and coherent worldwide R&D programme and to produce a Technical Design while having limited control over available resources. It is essential to maintain this ability in any successor organisation. It is proposed to replicate the GDE EC structure in the new ILC Project, with an ILC Director, three Regional Directors, 3 Regional Project Managers and a smaller number of additional members of an Executive Committee. Coordination of remaining ILC R&D to increase SCRF gradient and Q factor, and remaining systems tests and industrialisation studies will be coordinated by this body. The knowledge and expertise in areas where the design of the machine has been completed must be preserved in an appropriate fashion. Existing infrastructures should be maintained and made available for ILC production when appropriate.

CLIC Collaboration
Starting with the existing CLIC Collaboration structure being adapted as needed to become part of the overall Linear Collider organisation,

LC Physics and Detector Group
Coordinating a coherent detector R&D work for ILC and CLIC to ensure the optimal use of resources and following the development of physics so that the machine and detector specifications fulfil the requirements.